

## CLAIMS

What is claimed is:

- 1 1. A method of detecting removal of a component of an electrical  
2 system, comprising the steps of:  
3 triggering a detection circuit upon removal of a component; and  
4 storing non-volatile data related to when said component was  
5 removed.
- 1 2. The method of Claim 1 wherein said component is a hood of a  
2 computer chassis.
- 1 3. The method of Claim 1 wherein said electrical system is a  
2 computer system.
- 1 4. The method of Claim 1 wherein multiple components can trigger  
2 said detection circuit.
- 1 5. The method of Claim 1 wherein the basis of said data is user  
2 dependent.
- 1 6. The method of Claim 1 wherein said component is part of a  
2 system and the basis of said data is synchronized with said  
3 system.
- 1 7. The method of Claim 1 wherein data related to the removal of  
2 more than one component can be stored.
- 1 8. The method of Claim 1 further comprising the step of:  
2 relaying said data to an administrator.

1 9. The method of Claim 1 further comprising the step of:  
2 resetting said detection circuit after said storing step.

1 10. The method of Claim 1 wherein said data is presented to a user  
2 of said component.

1 11. The method of Claim 1 wherein said data related to removal of  
2 components creates a history file.

1 12. The method of Claim 1 wherein said data includes an indicator  
2 as to whether it has been acknowledged.

1 13. The method of Claim 1 wherein said detection circuit is  
2 powered by a battery.

1 14. The method of Claim 1 wherein said component is a hot-  
2 pluggable device.

1 15. A method for detecting loss of power to a portion of a system,  
2 comprising the steps of:  
3 triggering a detection circuit upon loss of power; and  
4 storing non-volatile data related to when said loss of power oc-  
5 curred.

1 16. The method of Claim 15 wherein said system is a computer  
2 system.

1 17. The method of Claim 15 wherein said portion is a power supply  
2 of a computer system.

- 1 18. The method of Claim 15 wherein multiple portions can trigger  
2 said detection circuit.
- 1 19. The method of Claim 15 wherein said detection circuit is  
2 powered by a battery.
- 1 20. The method of Claim 15 wherein said portion is a plug-in  
2 module.
- 1 21. A method for detecting removal of a component of a system,  
2 comprising the steps of:  
3 when a component is removed  
4 generating a signal;  
5 using said signal to stop a clock; and  
6 recording the value of said clock.
- 1 22. The method of Claim 21 wherein said signal is an alarm bit.
- 1 23. The method of Claim 21 wherein said clock remains stopped  
2 even if said component is replaced.
- 1 24. The method of Claim 21 wherein said recording step does not  
2 take place until after said system is powered up.
- 1 25. The method of Claim 21 wherein said value is recorded in a  
2 system event log.
- 1 26. The method of Claim 21 further comprising the steps of  
2 clearing said signal after said recording step; and  
3 resetting said clock after said recording step.

- 1 27. The method of Claim 21 further comprising the step of  
2 displaying a warning to the user of the component upon power-  
3 on self-test.
- 1 28. The method of Claim 21 wherein multiple components can  
2 trigger said detection circuit.
- 1 29. The method of Claim 21 wherein data related to the removal of  
2 more than one component can be stored.
- 1 30. The method of Claim 21 wherein said detection circuit is  
2 powered by a battery.
- 1 31. A component intrusion detection device, comprising:  
2 a component;  
3 a switch operatively connected to said component such that the  
4 absence of contact between said component and said switch  
5 changes the state of said switch;  
6 a real time clock and oscillator operatively connected to said  
7 switch such that a change of state in said switch can isolate  
8 said oscillator from the counter of said real time clock;  
9 and  
10 memory programmed to read the value of said real time clock.
- 1 32. The device of Claim 31 wherein said real time clock is set by  
2 the user of said component.
- 1 33. The device of Claim 31 wherein said component is a part of a  
2 system and said real time clock is synchronized with said  
3 system.

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1 34. The device of Claim 31 wherein when said switch changes state  
2 an alarm bit is generated.

1 35. The device of Claim 31 further comprising  
2 a display warning a user of the component of an intrusion upon  
3 power-on self-test.

1 36. The device of Claim 31 wherein multiple switches can be  
2 connected to said real time clock and said oscillator.

1 37. The device of Claim 31 further comprising non-volatile memory  
2 wherein more than one of said value can be stored.

1 38. The device of Claim 31 further comprising a battery to power  
2 said component intrusion detection device.

39. A real-time clock and theft detection circuit, comprising:  
programmed logic;  
non-volatile memory operatively connected with said programmed logic;  
real-time clock logic connected with said programmed logic and said non-volatile memory;  
at least one input pin connected to receive an intrusion detection signal and connected to said programmed logic;  
a switch operatively connected to a component such that the absence of contact between said component and said switch changes the state of said switch; and  
a real time clock and oscillator operatively connected to said switch such that a change of state in said switch can isolate said oscillator from the counter of said real time clock;  
wherein said programmed logic reads the value of said real time clock and stores said value in said non-volatile memory.

1 40. The device of Claim 39 wherein when said switch changes state  
2 an alarm bit is generated.

1 41. The device of Claim 39 wherein said clock remains stopped  
2 even if said switch reverts to its former state.

1 42. The device of Claim 39 wherein multiple switches can be  
2 connected to said real time clock and said oscillator.

43. The device of Claim 39 further comprising non-volatile memory  
wherein more than one of said value can be stored.

1 44. The device of Claim 39 further comprising a battery to power  
2 said component intrusion detection device.

- 1 45. A computer system, comprising:  
2 a chassis with a removable cover, said removable cover provid-  
3 ing internal access to said chassis, said chassis housing  
4 internal components of said computer, said internal  
5 components comprising  
6 one or more microprocessors which are operatively connected  
7 to detect inputs from an input device,  
8 memory which is connected to be read/write accessible by  
9 said microprocessor,  
10 one or more devices for mass storage of data, and an output  
11 device operatively connected to receive outputs from  
12 said microprocessor;  
13 one or more power supplies connected to provide power to  
14 said internal components; and  
15 a detection circuit which stores data related to when said  
16 components or said removable cover is removed.
- 1 46. The system of Claim 45 wherein said detection circuit is a loss-  
2 of-power detection circuit operatively connected to sense the  
3 presence of input power to one or more of said power  
4 supplies, and which stores data related to when said input  
5 power is removed.
- 1 47. The system of Claim 45 wherein multiple components can  
2 trigger said detection circuit.
- 1 48. The system of Claim 45 further comprising a detection circuit  
2 for each component or said removable cover to be monitored  
3 for removal.

1 49. The system of Claim 45 further comprising a multiple switch  
2 daisy chain circuit connected to each said component or said  
3 removable cover to be monitored for removal.

1 50. The system of Claim 45 wherein said detection circuit is  
2 powered by a battery.